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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/065,975	12/05/2002	Thomas G. Habetler	ETC7455.030	3825
27060	7590	03/18/2004	EXAMINER	
ZIOLKOWSKI PATENT SOLUTIONS GROUP, LLC (EATON)			LEJA, RONALD W	
14135 NORTH CEDARBURG ROAD			ART UNIT	
MEQUON, WI 53097			PAPER NUMBER	

2836

DATE MAILED: 03/18/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

## Office Action Summary

Application No.

10/065,975

Applicant(s)

HABETLER, THOMAS G.

Examiner

Ronald W Leja

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --  
Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

### Status

- 1) ☒ Responsive to communication(s) filed on IDS of 12/5/02.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

### Disposition of Claims

- 4) ☒ Claim(s) 1-23 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☒ Claim(s) 8-22 is/are allowed.
- 6) ☒ Claim(s) 1,7 and 23 is/are rejected.
- 7) ☒ Claim(s) 2-6 is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

### Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 05 December 2002 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

### Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some \* c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
  - ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

### Attachment(s)

- ☒ Notice of References Cited (PTO-892)
- ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- ☒ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)  
Paper No(s)/Mail Date 12/5/02.
- ☐ Interview Summary (PTO-413)  
Paper No(s)/Mail Date. \_\_\_\_\_.
- ☐ Notice of Informal Patent Application (PTO-152)
- ☐ Other: \_\_\_\_\_.

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1. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless -

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

2. Claims 1, 7 and 23 are rejected under 35 U.S.C. 102(b) as being anticipated by Lang et al. (5,521,482).

Lang et al. disclose a method for identifying an internal motor fault (Col. 14, lines 41-44) wherein simultaneous sampling of voltage and current data of an induction machine is operation occurs (Fig. 1, elements 42-54) and an indicator of reactive power is determined and used for motor fault detection (Fig. 4, elements 428, 430; Col. 19, lines 30-34). For Claims 7 and 23, (Col. 4, lines 21-24).

3. Claims 2-6 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

4. Claims 8-22 are allowed.

5. The following is a Statement of Reasons for the Indication of Allowable Subject Matter: The Prior Art of Record does not disclose nor suggest the claimed combinations found in Independent Claims 8, 13 and 18, as well as those limitations added by dependent Claims 2-6. The combination of Claim 8 includes determining a motor fault from a generated frequency spectrum of the instantaneous reactive power. The

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combination of Claim 13 includes comparing instantaneous reactive power values to a set of baseline reactive power values to determine a fault in the motor and the combination of Claim 18 includes comparing the reactive power to a baseline operation modeled from a computer so as to determine presence of fault conditions in the AC motor.

Dependent Claim 6 includes the determining of a reference frame transformation angle and a rotating reference. Claim 2 adds to Independent Claim 1, the use of real power wherein a load fault is determined from an indicator of the real power. Lang et al.

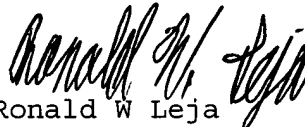
(5,521,482) teach the use of current and voltage sampling, reactive and real power calculating, the determination of motor faults as well as tracking motor performance and being able to yield advance warning of suspect fault conditions. A computer is used wherein historic data is gathered and utilized in the fault determining process via traces and performance diagrams, but there does not appear to be any disclosure or teachings of determining a motor fault from a generated frequency spectrum of the instantaneous reactive power or comparing instantaneous reactive power values to a set of baseline reactive power values to determine a fault in the motor or comparing the reactive power to a baseline operation modeled from a computer so as to determine presence of fault conditions in the AC motor. Therefore, it is the opinion of the Examiner, that the above claims are considered to be novel and unobvious in view of the Prior Art of Record.

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Any inquiry concerning this communication or earlier communications from the examiner should be directed to Ronald W Leja whose telephone number is (571)272-2053. The examiner can normally be reached on Monday thru Friday.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Brian Sircus can be reached on (571)272-2800. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

  
Ronald W Leja  
Primary Examiner  
Art Unit 2836



rwl  
March 7, 2004